

COMP 355 Advanced Algorithms

Spring 2012

Syllabus

- Class Time: Monday, Wednesday, and Friday, 1:00-1:50pm
Classroom: 104 Kennedy
- Instructor: Stephen V. Rice, Ph.D.
Office: 420 Ohlendorf
Office Hours: Monday, Wednesday, and Friday, 11:00-11:50am;
Monday and Wednesday, 2:00-2:50pm; or by appointment
Cell Phone: (662) 202-6933
Email: rices@rhodes.edu
Web Page: <http://www.stephenrice.com/comp355.html>
- Required Text: *Algorithms* by Richard Johnsonbaugh and Marcus Schaefer, Prentice Hall, 2003, ISBN-13 #978-0023606922
- Course Description: An in-depth study of the design and analysis of advanced algorithms, including the performance tradeoffs and resources required by various algorithmic implementations. Major classes of computational problems will be identified and explored. Advanced data structures and approximation heuristics are introduced as required for solution design. Topics vary depending on the specific problems covered but will include the Master Theorem, dynamic programming, divide-and-conquer and greedy algorithms.
- Prerequisites: COMP 241
- Grading: The overall grade for this course will be determined according to the following weights:
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|------------|------------------------------|
| 15% | Attendance and Participation |
| 35% | Programming Assignments |
| 10% | Exam I |
| 10% | Exam II |
| 10% | Exam III |
| <u>20%</u> | Final Exam |
| 100% | Total |